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ABSTRACT

Based on a project involving selected teachers from various vocational service areas, this teaching guide presents the 12 most frequently used strategies of teaching used in the modular approach as determined by those in the project. The brief individual description of each strategy includes notes on its strengths and weaknesses, instructions or guidelines for its use, and, in some cases, lists of sources of additional information or materials. The 12 strategies are (1) assignment sheets and job sheets, (2) demonstration, (3) field trip, (4) films and filmstrips, (5) formal and informal lectures, (6) oral discussion, (7) projects, (8) resource persons, (9) role-playing, (10) shadowing, (11) tapes, and (12) transparencies. (JT)

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HANDBOOK
ON
TEACHING STRATEGIES
FOR
MODULAR INSTRUCTION

U S DEPARTMENT OF HEALTH
EDUCATION & WELFARE
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PREFACE

This publication is the direct result of an Education Professions Development Act (EPDA) project conducted through the University of Arkansas in cooperation with the State Department of Education, Vocational, Technical, and Adult Education Division. The project mainly involved the teaching and supplementing of units of instruction with emphasis on teaching strategies using the modular approach. Selected teachers from various vocational education service areas were involved directly in the project.

The State Department of Education, Vocational, Technical, and Adult Education Division, assisted in all phases of the project. Furthermore, vocational education personnel provide valuable input into this publication. Individuals who contributed to the final writing and editing of this Handbook should receive special recognition. The names of the persons are:

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The Handbook on Teaching Strategies for Modular Instruction has been developed to provide for multi-service usage of twelve of the most frequently used strategies of teaching, utilizing the modular approach as determined by vocational education teachers in the project.

Dean Clayton, Co-Director
Module Teaching Project

Ralph Ruby, Jr., Co-Director
Module Teaching Project

ASSIGNMENT SHEETS AND JOB SHEETS*

Assignment sheets are instruments which give direction for the study to be done or assignments to be carried out by the student as stated in the objectives. Assignment sheets are included only if an objective calls for this type activity. Consequently, the function of assignment sheets is to provide for written or problem solving performances. They are also designed to provide opportunity for appropriate practice activities.

The assignment sheets may include questions to determine how well the student has reached a level of achievement. The achievement level can be reflected through student self-assessment and/or as a criterion check.

Job sheets are guides which provide complete instructions on how to perform in the proper sequence the operations necessary to successfully complete a job. Consequently, the function of job sheets is to provide practice on specific activities and to provide for skill development.

There are several components of job sheets. These include the following:

1. The name of the job.
2. A list of equipment and materials to complete a job.
3. A list of step-by-step procedures for performing the job.
4. Diagrams and illustrations of selected procedures.

Assignment sheets and job sheets represent integral components of the Mid-America Vocational Curriculum Consortium (MAVCC) format which are being utilized by many vocational educators in a twelve-state region, including Arkansas. The following eight components make up the MAVCC format:

1. STATEMENT OF OBJECTIVES - Measurable "terminal" and "specific" behavioral or performance objectives, arranged in ascending order of difficulty where possible.
2. TEACHER AND STUDENT ACTIVITIES - The basis for "lesson planning" including mandatory and optional activities, contents of unit, and bibliography of supplementary print and A/V resources.
3. INFORMATION SHEETS - All the "need-to-know" (plus motivational "ought-to-know") information pertaining to unit title, organized in reference to the unit's specific objectives.
4. TRANSPARENCY MASTERS - Where appropriate, illustrations, graphs, charts, diagrams, schematics, etc., that enrich or reinforce Information Sheet content.

*5. ASSIGNMENT SHEETS - Practice or exercise sheets, usually for reinforcement of cognitive learnings described on unit Information Sheets, included only if applicable to unit.

*6. JOB SHEETS - "Hands-on," realistic jobs, giving list of materials and tools needed, description of procedures, and (sometimes) "think" questions getting at the "why" of the procedures employed in the job, for reinforcement of psychomotor learnings, if applicable to the unit.

7. UNIT CRITERION-REFERENCED TEST - Test items stated in the same sequence as, and number-referenced to, the unit's specific objectives for both cognitive and psychomotor learnings.

8. ANSWERS TO UNIT TEST - For the teacher edition only.

DEMONSTRATION

A demonstration is to present ideas and processes or to provide opportunity to experience attitudes and feelings.

A demonstration shows the student both the sequence of motions and the manner in which they are performed. Showing the students how to perform an activity, as well as telling them, stimulates both visual and auditory responses and therefore accelerates the learning process. Students generally learn more by seeing than by hearing, and the demonstration combines both of these functions.

Before a demonstration is given the following items should be considered:

1. Awareness of the specific purpose of the demonstration before presenting it.

2. Knowledge of the demonstration procedure through rehearsal before class.

3. Planning the demonstration to assure that needed materials and equipment are at hand.

4. Sufficient time for the demonstration is available.

5. Physical arrangement for the demonstration permits students to see and hear.

6. Anticipated steps which are most difficult for students to grasp for clarification.

7. Arrangement to have the most pertinent questions asked after the demonstration is completed.

When teachers plan a demonstration, they should consider several facets:

1. Demonstration to a large group might be ineffective; therefore, the teacher could demonstrate to a small group or to an individual so that each person can see each step of the operation.

2. Since teachers find themselves doing the identical demonstration many times for different students, consideration could be given to videotaping a demonstration.

3. Demonstrations should not be considered a one-time method of presenting material. It may be necessary to repeat the demonstration for the students whose performance indicates that they cannot imitate the demonstration.

Specific steps in a demonstration might include:

1. Planning by the presentor of the demonstration.
2. Explanation and demonstration by presentor.
3. Imitation by observer.
4. Observation and evaluation by presentor.
5. Re-demonstration by presentor, if necessary.
6. Re-explanation and imitation.
7. Re-evaluation by presentor and observer.

Steps may be repeated as many times as necessary, for individual learners who need segments of the demonstration repeated; usually not for an entire group.

Demonstrations can be conducted by the student, a group of students, the teacher, a resource person, or a group of all or any of these. If the students become involved in the demonstration, they may learn more readily.

In summary, possibilities to consider in utilizing and reinforcing the demonstration method could include, among others:

1. Field trips
2. Role-playing
3. Films and filmstrips
4. Television and videotapes
5. Transparencies
6. Chalkboard
7. Cassette tapes
8. Resource persons
9. Peer teaching
10. Bulletin boards
11. Projects
12. Formal and informal lectures
13. Shadowing
14. Discussion

FIELD TRIP

A field trip is generally a visit by the student and the teacher for the purpose of first-hand observation. One of the best substitutes for life experiences can be a field trip which is also referred to as an excursion or study trip. A field trip enables students to experience on-site activities. A few examples would be visiting factories such as automobile assembly lines, soda bottling companies, canning factories, clothing factories, etc. Students hear the sounds and see what kinds of people are engaged in these activities.

In planning for a field trip, the teacher should check with the administration for permission and the policies regarding field trips. The policies could include areas such as:

1. Tr nsportation available.
2. Student liability.
3. Parental or guardianship permission.
4. Required group supervision.

Suggestions for enriching a field trip for students could include:

1. Select a field trip site appropriate for what is being studied. Make arrangements with the person in charge. Be sure there is agreement on dates, time, number of participants, rules the student may need prior to their visit, etc.
2. The class should be prepared for the visit. On the day before the field trip, the class could develop questions which they want answered as a result of the trip. Dress and conduct should also be discussed so the students will know what is expected of them.
3. Once the trip has been taken, the students should follow up by writing a letter of appreciation to their guide. The class should discuss the experience and appraise the worth of the trip.
4. The students may further pursue the activity by discussing the questions answered as a result of the trip, prepare booklets from the information received, construct models or draw diagrams, etc.

A well-planned field trip should result when the instructor has set specific learning goals. Since field trips are taken to enrich subject matter areas, they should be well-planned and organized. When the class is too large to accomodate a field trip or scheduling problems arise, a committee could be selected from members of the class. The committee could then visit the site and report to the class its learning experiences. Sometimes the committee field trip could be conducted during the school day. In other cases, it may be necessary to plan the committee field trip when school is not in session.

In summary, the instructor should be well acquainted with the places to be visited in advance. Explanation to the class beforehand as to why the students are going and what they are to look for should be incorporated. The class should list the questions to be asked on the field trip to serve as a guide. Following the trip, this list can serve as a guide for their discussion.

FILMS AND FILMSTRIPS

Films and filmstrips are to encapsule sounds and events and have a distinct advantage in that they involve both the sense of sight and the sense of hearing. Therefore, both can be used effectively within a classroom.

Advantages of motivating students through effectively using films in the classroom tend to far outweigh the disadvantages. Students can become involved in the selection of films to be shown by allowing them to assist in the process. Some students and the teacher might preview the film and then compare their evaluation. A file of acceptable films can be developed for future use by all the teachers through these evaluations. Although many schools have media centers, free films can also be obtained through the state department, the federal government, and public and/or commercial sources on free loan. Funds should be provided for all teachers to order films for classes in their service area. The problem of having the film set up ahead of time can be alleviated by having students set up the projector for class usage. Students can arrange with the media center for the securing and returning of all equipment. A broken projector can usually be fixed if the teacher will have available a projector bulb, exciter lamp, and a fuse appropriate for each projector.

On the other hand, there are several disadvantages in the use of films. Most of the time, films must be ordered far in advance, and teachers generally must plan where they hope to be in their lessons a year in advance. When the film arrives, the teacher may not be at the previously planned place in the unit, but must show the film anyway because it must be returned within a specified number of days. Films must be previewed to be sure they are worth showing. The teacher should note the date of the film, the content, whether it is color or black and white, whether it is sexist, etc. Films must be set up ahead of time to keep from using class time; teachers often do not have this time between classes. Also, there is the ever-present problem of mechanical failure with the projector. One big misuse in the utilization of films is their overuse by some teachers.

Films can be an excellent means of student motivation by teachers. A good film can be very effective if shown twice. Students tend to see and hear something entirely different when the film is shown the second time. A teacher may introduce and close a unit with the same film. Before the film, some type of introduction to the film should be made and guidelines given to the student as to the main points in the film. Immediately after a film is shown, some type of discussion of the film might occur. Films can be used to prepare students for field trips. Resource persons can be used to show and discuss films in connection with their presentation, and can also be used as a source of films. Students can be tested on the material contained in the films. Filmstrips with tapes are an excellent means of individualized instruction for the student. Filmstrips can be used to sharpen many skills of students.

Consequently, the utilization of films in the classroom for variety, motivation, student involvement, and as additional media for the teacher would certainly justify their use in all areas. The use of films should not be avoided because of a few "disadvantages!"

The following represents a limited, selected list of sources for films appropriate for vocational education students. Catalogs may be secured by contacting these firms and agencies:

Arkansas Power and Light
Film and Slide Scheduling
c/o Mike McMenigal
P. O. Box 55
Little Rock, AR 72203

Arkansas State Dept. Film Catalog
Department of Education
Audio-Visual Service
Arch Ford Education Building
Little Rock, AR 72201

Association Films, Inc.
866 Third Avenue
New York, NY 10022

Sears Film Library
c/o Association-Sterling Films
8615 Directors Row
Dallas, TX 75247

Pyramid Films
P. O. Box 1048
Santa Monica, CA 90406

Southwestern Bell Film Library
5405 Randolph
P. O. Box 1189
No. Little Rock, AR 72115

Film Librarian
Public Relations and Advertising
Department
AETNA Life and Casualty
Hartford, CT 06156

Modern Talking Picture Service
1212 Avenue of the Americas
New York, NY 10036

The Aluminum Association
750 Third Avenue
New York, NY 10017

Visual Aids Service
Division University Extension
University of Illinois
Champaign, IL 61822

FORMAL AND INFORMAL LECTURES

Formal Lectures

The formal lecture is the type of presentation which is primarily carried out by the instructor of the class. The instructor uses an established method which may have been designed to emphasize the most interesting areas and high points of a particular unit of instruction which the instructor feels is most beneficial for the class. Elaborations by the instructor on these points could give the class a better understanding.

When the "formal" lecture is referred to, reference may be made to established methods or forms, such as formal procedures, the way an activity or the like is customarily carried out. The formal lecture should be short, informative, and to the point; whereas, it will bring about clarity and understanding to the group. The material should be limited to the maturity of the group according to the grade level; the higher the maturity and grade level of the group the more advanced the material could be.

Handouts may be passed out at the beginning of the formal lecture to serve as a means of reference during the lecture, making the lecture more informal.

Informal Lectures

Informal lectures are to allow for student involvement. The class does not necessarily have to be carried on in a formal fashion; however, it can be carried on in a more relaxed or "informal" manner.

The teacher may select the use of various teaching strategies appropriate, such as:

1. Demonstrations
2. Transparencies
3. Slides
4. Films and filmstrips
5. Charts and posters
6. Role-playing
7. Special assignments
8. Peer teaching
9. Resource persons
10. Field trips

11. Discussion

12. Projects and notebooks

(A combination of the above might be used, if applicable.)

These are aids which will bring about better understanding and help build the interest of the class. They may also clear up questions that some of the students may still have about the particular unit of instruction being discussed. After utilizing the various aids, the instructor might open the session for class discussion. However, it would be appropriate to have class discussion during the informal lecture.

An example in which an informal lecture may be conducted is:

> The teacher or the students may invite a resource person who will speak to the class. This person may be the moderator of the group and the students the panel members. In this setting, the teacher may wish to evaluate the students on their contributions to the discussion.

Whether a lecture is formal or informal, the major objective of the instructor should be to bring about a better and clearer understanding by the students of the overall objectives designed for the unit of instruction by creating a classroom situation that is conducive to learning.

ORAL DISCUSSION

Oral discussion is a communication process which deals with the different aspects of a topic. This may be simply for informative purposes or for the purpose of deciding a particular issue. It may be used in the classroom to stimulate interest in a topic and create student involvement.

There are certain procedures to follow in creating good oral discussion. A discussion leader should be sufficiently familiar with the topic in order to lead an effective discussion and should motivate the students for the discussion by stating the objectives to be reached. Students may also suggest objectives. The objectives should be presented in an orderly manner and should relate to local situations and personal goals of the group. This may be done by "localizing" and "personalizing" the material for the discussion.

To "localize" and "personalize" the discussion, the discussion leader and students should draw upon their own personal experiences. The information discussed should apply to the particular community and relate to the individual students' background.

"Localizing" could include:

1. Apply units of instruction to the local community.
2. Add additional materials.
   a. Newspapers (local)
   b. Magazines (local)
   c. Government publications (local)
3. Invite local resource persons.
4. Arrange for local field trips.

"Personalizing" could include:

1. Make course content relevant to home and/or work situations.
2. Involve students in planning.
3. Use students' personal experiences.
4. Use peer teaching.
5. Be able to justify the content.
6. Use teacher's experiences.

In order for the discussion to be stimulating and interesting, students should be allowed to present their views with openness and candor. Controversial subjects and opinions should be allowed in the discussion as long as the objectives are reached.

Discussion sessions should not be so long that the students lose interest. Discussion is one way of creating student interest and should not be relied on too frequently as the students will become disenchanted. The discussion leader should keep the discussion moving from objective to objective at a pace which gives enough time for the topic to be covered yet does not allow for dull periods when nothing is accomplished.

Discussion leaders should not allow any one person, including themselves, to dominate the discussion. Remember that everyone involved should be given an opportunity to present their viewpoint. Students should not be singled out for criticism or made to feel that their viewpoint is of no importance.

In summary, discussion is only one of many teaching strategies. The discussion should always have objectives which are clearly defined with regard to the students' needs and interests. The topic for discussion must be sufficiently researched and prepared by the discussion leader. It should give opportunity for all to participate and should not be excessively used so that its effectiveness is lost.

PROJECTS

A project is a planned learning activity that provides an opportunity for students to be innovative and creative. Projects can be a valuable teaching aid if properly planned and executed. They can provide an excellent way for the students to express their own ideas and work individually as well as in groups.

The fundamental purpose of using projects during a course is to provide motivation and performance standards for the students as they learn specific knowledge, skills, and/or understandings. They can be designed so that the correct knowledge, skills, and/or understandings are emphasized.

In selecting projects for instructional purposes, the following objectives should be considered:

1. The students should understand the purpose of the project.
2. The projects should require the development of the knowledge, skills, and/or understandings selected to meet a certain objective for the course of study.
3. The finished projects should be useful.

The students could be prepared by an introductory discussion that incorporates what they already know as a point of beginning. The students should assist in selecting the projects because their participation is very important. Committees may be appointed such as: guideline committee, project committee, editing committee, and duplicating committee. To further stimulate interest the students might be informed that a news release and pictures of the winning projects will be submitted to the news media.

Directions and examples for the project should be clear and concise. Three guidelines that need serious consideration are:

1. Importance to the student.
2. Accomplishment within a reasonable time.
3. Efforts commensurate with the student's ability.

One type of project is a notebook which could reflect effectively a systematic summary maintained by each student. This summary could include:

1. The findings and reports of committees.
2. The results of any investigation undertaken.
3. Information obtained from supplementary material.

From this experience, students should be able to select the important points of a unit and to organize information logically. In addition, students could have a valuable source for reference and review before testing.

Youth organizations are an integral part of the vocational education program. It is an excellent vehicle to conduct projects and create interest in the organizations. The work can be accomplished individually or as a group activity to enter in local, state, and national competition. This approach should strengthen any vocational education youth organization.

Criteria for evaluating projects could include:

1. Do the projects have meaning for the students?

2. Are the projects related to the real-life experiences of the students?

3. Do the suggested experiences in the project provide fundamental meaning as well as developing knowledge, skills, and understandings?

4. Is the learning from the project contributory to the achievement of accepted educational goals?

RESOURCE PERSONS

Resource persons are individuals invited from the community who come to the classroom and talk to students about a unit or particular item discussed which, in many instances, may not be thoroughly covered in the text or classroom discussion.

An error that teachers often make when they invite speakers to talk with their classes is that of failing to outline beforehand what the student will need. The instructor should also be sure that the speaker has all needed equipment and space for display. If advance planning is not completed, the visit may be boring and less profitable. It should be remembered that a resource person without some help does not know what phases of work will be of most interest to the class. Also, lack of experience in talking with groups of young people may cause the resource person to misjudge the level of complexity that is proper for the group.

For the above reasons, it is advisable to relate to all visitors in advance the precise reasons why they have been invited to the class. It may be preferred to explain that the class does not expect a prepared speech, but rather that they wish to interview the resource person. A list of the principal questions can then be given to the resource person. This procedure not only helps the resource person decide what to say and what materials to bring for display, but it also protects the students from listening to the formal speech that an inexperienced or frightened resource person often assumes must be given.

In addition to providing experts for the class, the practice of inviting resource persons by students gives them an added dimension for use of their social courtesies. This means that the students have the opportunity to invite the guest, meet possible future employers, ask questions in a polite manner, and express their appreciation for the visit. Students may present the speaker with a certificate as a token of their appreciation. If time permits, they may choose to write the local newspaper announcing the resource person's visit.

The following is a rough classification of selected sources of resource persons:

1. Organized institutions--government agencies on all levels, Red Cross, fund-raising organizations, etc.

2. Professional and specialized organizations--medical, dental, and legal professions, labor unions, specialized research and welfare groups, groups dedicated to educational or religious interests, etc.

3. Organizations for social service and hobbies--service clubs and fraternal orders, associations representing special interest groups, etc.

4. Groups representing particular occupations--workers in all vocational areas.

Since the school administration is responsible for everything that goes on in the school, resource persons should not be invited to talk to a class until they have been officially approved by the administration. The teacher might design a standard form which will include such information as:

1. The name of the guest speaker.
2. The institution represented.
3. The subject to be discussed.
4. The precise time and place of the proposed visit.
5. The name of the teacher making the request.
6. Resource person's qualifications in the subject area.
7. Space for written approval by the school administration.
8. Space for written denial by the school administration.

The school should keep a file of the forms for future reference by teachers in other subject areas and other schools.

After the presentation by the resource person, the teacher could follow up with a classroom discussion of the information presented and how it relates to the material previously included in the unit of instruction. Questions planned in advance should be stressed in the discussion.

The resource person serves as a vital link between the outside world and the classroom. Certainly, the representatives of the community who are fitted to make a long-range impact on the work of the school, and, more specifically, meet the needs of vocational students, are those who have intimate and authoritative knowledge of certain aspects of community life and the world of work.

ROLE-PLAYING

Role-playing is a spontaneous dramatization in which students assume certain roles and play them as they perceive them.

Role-playing can be a vital part of classroom instruction and the learning process when used creatively. There are numerous avenues open to the teacher who use this teaching method, such as:

1. Helping students to realize that others have problems similar to theirs.
2. Providing realistic and interesting ways of handling problem situations.
3. Providing opportunities for students to identify themselves as real people.
4. Creating an escape valve for emotional tensions.
5. Helping students with self-perception and gaining of insight into their own behavior.
6. Assisting students in developing interpersonal competence.
7. Providing opportunities to rehearse new ideas and skills in a setting familiar and safe to them.

A role-playing situation should be derived from a specific problem suitable for acting, real to the class, and geared to the approximate age level of the students. The problem could be explored through discussion or informal lecture sessions until it is defined and understood clearly by the students. Consequently, a good foundation is laid for the role to be played, especially basic understanding of what to look for during the experience. When appropriate, resource materials should be made available to the students for enrichment of the role-playing process.

Role-playing situations may be created by reading part of a script and stopping at a crucial point. The roles of the characters could then be taken on by members of the class and the remainder of the script acted out as the class members wish. Other items such as pictures, bulletin boards, posters, graphs, and flannel boards may also be used as stimuli for role-playing situations. Time should be allocated for class discussion after a role-playing situation; as much learning can and does take place at this time.

Role-players should generally be volunteers. In all instances, however, they need encouragement to participate. Unfavorable roles should, for the most part, be acted out by a student known by the teacher to be secure and mature enough to handle them.

After the role-playing activity, there are several techniques that may be utilized to make evaluations meaningful. By the use of soliloquy the actors in the role-playing situation are given the opportunity to step out of their roles and tell the other students what they are really feeling. With the use of

role-reversal, students might take the part of the opposite sex and when they become comfortable with these roles, reverse to their traditional sex roles. Role-reversal can be used in a number of other ways. Through the use of re-enactment, students are allowed to act out a situation using the ideas and suggestions about how it could have been handled differently. This would give the class a basis for determining if the suggestions and ideas are suitable.

A discussion period after the role-playing activity might include:

1. What the players and the other students felt they learned.
2. Strong and weak aspects of the manner in which the roles were played.
3. How various conflicts were resolved.
4. What other ways might be used to solve the problem.

SHADOWING

Shadowing is observing a person on a job.

Schools may schedule Vocational Week during the year when a Vocational Education Day is held where Vocational Education is promoted in the community. A "Career Night" at school during this week is appropriate where all types of businesses might be represented. Specific names of employers may be obtained to provide shadowing opportunities for students during such activities. The Advisory Committee can be of help in securing names of businesses where students will be permitted to shadow one employee at a specific business on a day after school or on the weekend. The basic information could include the following:

1. Name of company and employer.
2. Address and telephone number of company.
3. Time for shadowing.
4. Occupation to be observed.

Shadowing should include the following guidelines:

1. Secure permission to shadow an employee or employer through proper channels.
2. Arrange a definite time when shadowing might take place.
3. Observe actual tasks of employee or employer.
4. List the duties and responsibilities of the job.
5. List educational and physical requirements of the job.
6. List abilities, interests, and aptitudes needed.
7. Inquire about the conditions of the job as well as the security of employment and opportunities for promotion.
8. Secure the advantages and disadvantages of the occupation.
9. List tools, machines, or equipment of the job.
10. List fringe benefits of the occupation.
11. Observe dress, speech, and telephone dynamics.
12. Interview the employee or employer during and/or after the shadowing process.

TAPES

Tapes are a type of instructional media which can enrich the teaching process through reinforcing, supporting, and supplementing classroom instruction. In certain cases, tapes can be the only teaching process at a particular time. Depending on the type and availability of equipment, tapes may be in the form of reel to reel or cassette.

If tapes on the desired subject matter are not in the teacher's inventory, they may be found in a school's materials center, careers center, other curriculum departments, or from outside the school. Pre-recorded tapes may be purchased, rented, or provided free from many sources on a variety of subjects. In addition, a teacher may prepare tapes with emphasis in a specified subject area.

The individualized instruction process may be enhanced through the use of tapes. Students within the same class may work at different levels according to their aptitude, speed, and/or interest within different subject matter areas.

Tapes are an excellent source for providing additional information on topics raised in lectures, readings, and discussions. Instructions for repetitious classroom activities may also be taped.

Resource persons' presentations to classes may be recorded to be used for other classes or recorded in advance so that tapes may be used when these individuals cannot attend in person. The tapes may also be saved for further classroom use.

A class or a portion of a class might be taped when students are giving reports or results of surveys or interviews to be played for other classes. Tapes could be used as a means of reinforcement, make-up work, or a review exercise for the students.

Tapes may be prepared by classes or clubs, explaining their programs, for use with PTA's, advisory committees, civic groups, other school groups, etc., where tapes by themselves, or with a visual presentation, may be used in any area for promoting school and public relations.

Teachers should be familiar with the types of equipment to be used before playing tapes or recording in the classroom. In addition, tapes should be reviewed and evaluated by the teacher for length, volume, sound quality, and content. Questions, assignment sheets, discussion points, or test questions may be decided upon while reviewing tapes.

Visual materials often accompany tapes. Examples are filmstrips, slides, transparencies, charts and graphs, workbooks, etc. Whatever the combination, teachers should thoroughly preview the materials before actual classroom usage.

TRANSPARENCIES

Transparencies are a teaching aid used to reinforce a unit of study. Regardless of the transparency used, the purpose of its usage is to make a unit of instruction more valuable and interesting to the student. Specifically, transparencies can be used effectively to:

1. Introduce a unit.
2. Stress facts.
3. Discuss assignment sheets.
4. Implement games.
5. Review material.

Transparencies come in many forms. They may be purchased pre-prepared to correlate with a unit of instruction. These often are supplemented with important points that should be discussed with the students. However, transparencies may be prepared by the teacher to serve as a teaching aid with any unit of instruction.

Students like to view cartoon characters or school mascots on the screen while learning at the same time. Students may also get involved in making the transparencies which saves the teacher time and makes the transparencies more meaningful to the students. Students might add color to the transparencies that are already made or assist in the development of new transparencies.

All materials which are going to be used in a presentation should be organized so that they can be easily found and utilized. If it is necessary to search for a certain transparency or decide how it goes on the overhead projector, it distracts from the lesson and may cause the student to lose concentration. Teachers can prepare cue cards to remind themselves of points they want the students to gain from a particular transparency. This may easily be done on notecards. The notecards may consist of questions the students need to answer or an outline of the points needing emphasis.

Transparencies can be used as an interesting activity for the student. Therefore, the teacher should not expect to list points on a transparency and ask the student to copy them down to study on their own.

Whenever transparencies are used in the classroom, the teacher should check the overhead projector and be certain of its operation. The following factors should be considered:

1. The size of the group.
2. Placement of the screen.
3. Placement of the projector.
4. Time needed to set up the projector.